

WHAT IS CLAIMED IS:

1. A mobile communication terminal having a main body and a folder, the folder being pivotably connected to the main body, the main body and the folder
5 each having a ground coated with a conductive material on its inner surface, said mobile communication terminal comprising:

a hinge device comprising:

a conductive hinge housing electrically connected to the ground of the folder, said hinge housing adapted to be mounted within the folder;

10 a conductive coil spring adapted to be mounted within the hinge housing, a first end of said coil spring being fixed to an inner wall of a first end of said hinge housing; and

a conductive contact pin adapted to be mounted within the hinge housing, a first end of said contact pin being supported by a second end of the coil spring opposite the first end of the coil spring, a second end of the
15 contact pin extending through a second end of said hinge housing for connection to the main body; and

a conductive hinge dummy electrically connected to the ground of the main body and adapted to be mounted within the main body, said hinge dummy being
20 fixed to the second end of the contact pin.

2. The mobile communication terminal according to claim 1, further comprising a conductive connecting piece fixed to the ground of the folder and in contact with the hinge housing which is mounted within the folder.

25

3. The mobile communication terminal according to claim 1, wherein the hinge dummy is provided with a dummy hole to which the second end of the contact

pin is connected.

4. The mobile communication terminal according to claim 1, wherein the contact pin comprises a supporting pedestal which supports the second end of the
5 coil spring at a first end of the supporting pedestal and a pin which extends from a second end of the supporting pedestal and protrudes outwardly through the second end of the hinge housing.

5. The mobile communication terminal according to claim 4, wherein the
10 hinge device further comprises:

a hinge shaft rotatably received in the hinge housing while supported against an inner wall of the second end of the hinge housing, having a longitudinal mountain-shaped portion at a first thereof, provided at a second end thereof with a hinge protrusion which protrudes outwardly through the second end of the hinge
15 housing, and formed with a through hole which longitudinally penetrates the hinge shaft from the mountain-shaped portion to the hinge protrusion; and

a hinge cam in contact with the supporting pedestal of the contact pin at a first end thereof, provided at a second end thereof with a valley-shaped portion corresponding to the mountain-shaped portion of the hinge shaft, moving
20 longitudinally within the hinge housing and formed with a through hole which longitudinally penetrates the hinge cam so that the pin of the contact pin passes through the through holes of the hinge shaft and the hinge cam.

6. A mobile communication terminal having a main body and a folder
25 pivotably connected to the main body, the mobile communication terminal comprising:

a main body housing having a ground which has an internal surface coated

with a conductive material, the main body housing having an upper end with two sides, wherein both sides are provided with a side hinge arm;

a folder housing having a ground which has an internal surface coated with a conductive material, the folder housing having a lower end with a center hinge arm,
5 wherein the center hinge arm is pivotably connected between the side hinge arms;

a conductive connecting piece fixed to the internal surface of the folder housing, connected to the ground of the folder housing, and extending into an inner portion of the center hinge arm;

a conductive hinge dummy fixed to the side hinge arms of the main body
10 housing and connected to the ground of the main body housing; and

a hinge device received in the center hinge arm to pivotably connect the folder to the main body,

wherein the hinge device comprises:

a conductive hinge housing mounted within the center hinge arm and in
15 contact with the connecting piece;

a conductive coil spring mounted within the hinge housing and supported at a first end thereof against an inner wall of a first end of the hinge housing; and

a conductive contact pin received in the hinge housing having a supporting pedestal against which a second end of the coil spring is supported and a pin which
20 extends from the supporting pedestal and protrudes out of a second end of the hinge housing in contact with the hinge dummy, so that the hinge device is grounded to the grounds of the main body and the folder, and the grounds formed in the main body and the folder are electrically connected to each other.

25 7. The mobile communication terminal according to claim 6, wherein the hinge device further comprises:

a hinge housing having a closed end and a partially opened end having a

shaft hole, the hinge housing having a receiving chamber with a first side which is opened, the receiving chamber being provided on a side wall thereof with a longitudinal guide groove;

5 a hinge shaft rotatably received in the hinge housing, having a longitudinal mountain-shaped portion at a first end thereof, provided at a second end thereof with a hinge protrusion which protrudes through the shaft hole of the hinge housing, and formed with a through hole which longitudinally penetrates the hinge shaft from the mountain-shaped portion to the hinge protrusion;

10 a hinge cam provided at one end thereof with a valley-shaped portion corresponding to the mountain-shaped portion of the hinge shaft, having on one side thereof a guide protrusion which moves longitudinally within the guide groove of the hinge housing, the hinge cam having a through hole which longitudinally penetrates the hinge cam;

15 a coil spring with a first end which is supported against an inner wall on the closed end of the hinge housing for urging the mountain-shaped portion of the hinge shaft and the valley-shaped portion of the hinge cam to be in contact with each other; and

20 a contact pin having a supporting pedestal which is interposed between the coil spring and the hinge cam and against which a second end of the coil spring is supported, and a pin which extends from the supporting pedestal and protrudes out of the partially opened end of the hinge housing through the through holes of the hinge shaft and the hinge cam.

8. A hinge device for a mobile communication terminal, the mobile
25 communication terminal having a main body and a folder, the folder being pivotably connected to the main body, the main body and the folder each having a ground coated with a conductive material on its inner surface, said hinge device comprising:

a conductive hinge housing electrically connected to the ground of the folder, said hinge housing adapted to be mounted within the folder;

a conductive coil spring adapted to be mounted within the hinge housing, a first end of said coil spring being fixed to an inner wall of a first end of said hinge housing; and

a conductive contact pin adapted to be mounted within the hinge housing, a first end of said contact pin being supported by a second end of the coil spring opposite the first end of the coil spring, a second end of the contact pin extending through a second end of said hinge housing for connection to the main body; and

10 a conductive hinge dummy electrically connected to the ground of the main body and adapted to be mounted within the main body, said hinge dummy being fixed to the second end of the contact pin.